Subject: Re: weird contour lines
Posted by David Fanning on Sat, 31 Oct 2009 17:16:48 GMT
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Libo Wang writes:

> Thanks, David. I've read helpful tips in your website. It is actually
> a bit of both aesthetic problem and a science problem! A meteorologist
> would probably tell me that my map is not what a standard pressure
> field plot should look like!
>
> I tried to expand my data from 144*37 to 1440*370 using cubic=-0.5 in
> Congrid,the contour map did improved in some parts, but some parts got
> worse:
>
> http://picasaweb.google.com/lh/photo/pbT1Ftfbx0nqS9O3uw0tGg? feat=directlink
>
> The NCEP data is low in resolution: 2.5 degree spacing. What else
> could I try?

Well, this is a pain-in-the-kiester solution, but what you
could do is obtain each closed contour from the CONTOUR
command (PATH_XY keyword, etc.) and "resample" it with the
ArcSample program from my web page:

http://www.dfanning.com/programs/arcsample.pro

The purpose of ArcSample is to re-sample the contour
at approximately equally spaced intervals, and then to
use those points to interpolate the contour. This has
the effect of smoothing the contour. I use this, for
example, when I am getting the starting points for
an active contour or snake algorithm.

I wouldn't go to this kind of trouble unless your
meteorologist friend is EXTREMELY anal.

Cheers,

David

P.S. I assume you tried using the MIN_CURVE_SURF program
on your data and gave up because you don't have that many
hours in the day.

--

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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")